

Ebola Virus Disease Testing & Shipping Instructions

Contact your local Health Department Epidemiologist for all suspected Ebola virus cases. The CDC MUST approve testing before specimens can be submitted to DCLS.

- I. TESTING SUMMARY:** DCLS provides 24/7 courier and testing service for approved Patients Under Investigation
- **1st Testing Tier:** Two CDC Ebola virus PCR assays (NP and VP40) for the detection of Ebola Zaire virus
 - **2nd Testing Tier:** Influenza/COVID-19 real time PCR testing of NP or nasal swab in VTM
Malaria real time PCR testing of whole-blood specimen in EDTA
 - **Enteric Testing:** BioFire GI pathogen panel (stool in Cary Blair media) provided as a **last resort** if testing cannot be performed at the Ebola Centers **AND** Ebola virus has been ruled out
- II. RESULTS REPORTING:** Ebola virus can be detected in blood only after onset of symptoms, most notably fever. It may take up to 3 days post-onset for detectable levels of virus. **Testing turnaround time is 5-6 hours.**

Reporting Language	Results	After Actions/Notifications
" POSITIVE for Ebola virus RNA"	2/2 NP and VP40 positive	Forward specimen to the CDC
" NEGATIVE for Ebola virus RNA"	2/2 NP AND VP40 negative	Test specimen collected after 72hrs from symptom onset if first sample was collected before 72hrs from onset
" EQUIVOCAL for Ebola virus RNA"	1/2 NP or VP40 positive	Consult with the CDC

III. SPECIMEN COLLECTION/SUBMISSION:

- **Ebola/Malaria:** Collect 2 whole blood specimens using EDTA purple-top blood tubes (plastic only) (do not centrifuge blood tubes)
- **Influenza/COVID-19:** Collect 1 NP or nasal swab specimen in viral transport media (VTM)
- **Store and ship all specimens at 4°C**
- Submit a completed DCLS Test Request form with the specimens, providing all patient information, and medical history (place completed form on the outside of the secondary specimen receptacle)
- Complete Shipper's Declaration Form with red border paper (place **3 copies*** in the plastic sleeve that is attached to the outermost insulated shipper)
***2 of 3 copies printed in color**

CONSIDERATIONS FOR SPECIMEN PACKAGING/TRANSPORT:

- Dept. of Transportation (DOT) requires "contracted" couriers **ONLY** transport Risk Group 4 specimen packages that are prepared by Category A certified individuals
*** Please communicate to DCLS if your facility does not have staff certified to package and ship Category A specimens***
- **The DCLS courier cannot be deployed to retrieve a Risk Group 4 specimen that has not been packaged properly by a Category A certified shipper using defined DOT requirements**
- Category A packages must include DOT-approved labeling, packaging materials and shipper's declaration
- DCLS provides Category A/Risk Group 4 shipping kits (See Section IV) to all area Health Districts and Ebola Centers for Ebola virus testing
- DCLS can also provide a kit directly to a facility upon CDC testing approval for a PUI if a kit cannot be obtained from an area Health District

III. CATEGORY A/RISK GROUP 4 (RG4) KIT CONTENTS:

QTY:

- (2) Lavender-top EDTA plastic blood tubes
- (2) Biohazard bags w/absorbent material
- (2) Squares of parafilm to seal blood tubes
- (1) Secondary specimen receptacle
- (2) Cold packs (**Freeze prior to shipping**)
- (1) Ziplock plastic bag for documents
(placed outside secondary container)

QTY:

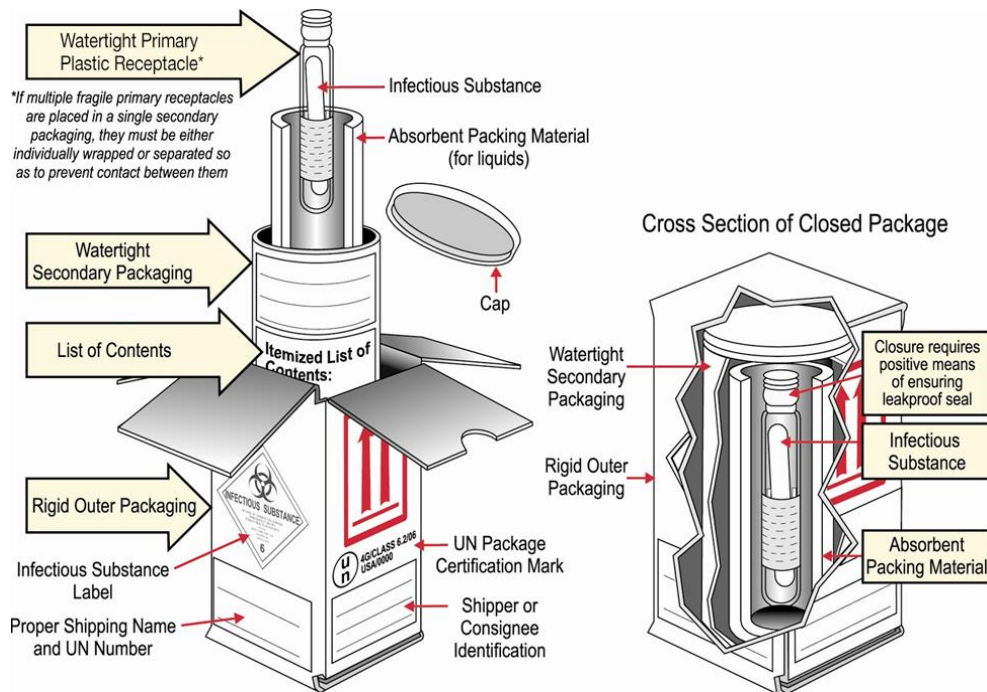
- (1) DCLS Ebola Virus Testing Instructions
- (1) DCLS Test Request Form
- (1) IATA pre-labeled insulated shipper for Category A shipments
- (2) Sheets paper with **red diagonal** hatch marks to print **Shipper's Declaration Form**
- (1) Itemized list of contents card (**be sure to include specimen type quantities** (e.g. 5ml EDTA whole blood tube/qty 2)
place completed card between the secondary receptacle and outer package

IV. SPECIMEN PACKAGING

- Package specimens following the basic TRIPLE PACKAGING SYSTEM (see diagram below):
 - **Primary “shipping” receptacle** - (sealable specimen bag) wrapped with absorbent material
 - **Secondary “shipping” receptacle** - (watertight, leak-proof, and puncture proof container)
 - **Tertiary “shipping” receptacle** - (rigid outer shipping package)

If multiple primary receptacles will be placed in a single secondary receptacle, they must be individually wrapped or separated to prevent contact between them.

- **Submission form should be included in the package outside of the secondary receptacle**
- The shipping receptacle should have the appropriate DOT-approved labeling required for Category A packages



CONTACT INFORMATION / REFERENCES:

DCLS 24/7 Emergency Number: (804-335-4617)

DCLS Bioterrorism/Special Pathogens Testing Coordinator: Dr. LaToya Griffin-Thomas (804-385-8057)

DCLS Test Request Form: <https://dgs.virginia.gov/globalassets/document-center/dcls-forms/dcls-test-request-form-168572.pdf>

DCLS Hot Topics/Ebola Instructions: <https://dgs.virginia.gov/division-of-consolidated-laboratory-services/updates/hot-topics/>

Shipper's Declaration Forms: <https://www.iata.org/contentassets/a9f496cd8c87466b98142fa6d4cdb209/shippers-declaration-column-format-fillable.pdf> OR <https://www.fedex.com/content/dam/fedex/us-united-states/services/ShippersDecColumnsColorPrinter.pdf>